

CLAIMS

1. A polymorphic database comprising:
an application program; and
data accessible by the application program and on
5 which the application program is operative, wherein the
data comprises:

a records data set (RDS) containing at least one
RDS entry having data fields configured for
representing data; and

10 a categories data set (CDS) containing at least
one CDS entry configured for being associated with the
at least one RDS entry and having at least one data
type field sufficient to describe the type of data
contained by the at least one associated RDS entry.

15 2. The database of Claim 1 further comprising for
each CDS entry a unique category identifier, and for each
RDS entry a field for storing the unique category
identifier of the CDS entry with which a respective RDS
entry is associated.

20 3. The database of Claim 1 further comprising for
each RDS entry a unique record identifier, and a field
configured for storing the unique record identifier of each
other RDS entry with which each respective RDS entry is
associated.

4. The database of Claim 1 further comprising for each CDS entry a unique category identifier and an inheritance field configured for storing the unique category identifier corresponding to another CDS entry from which properties will be inherited for a respective CDS entry.

5. The database of Claim 1 further comprising for each CDS entry a unique category identifier and an inheritance field configured for storing the unique category identifier corresponding to another CDS entry from which properties will be cumulatively inherited for a respective CDS entry.

6. The database of Claim 1 further comprising:
for each CDS entry a unique category identifier;
for each CDS entry a field configured for storing the unique category identifier of each other CDS entry with which each respective CDS entry is associated;
for each RDS entry a unique record identifier; and
for each RDS entry a RECORD_CATEGORY_ID field configured for storing the unique category identifier corresponding to the RDS entry, and a PEERS field for storing the unique record identifier of each other RDS entry which corresponds to each respective CDS entry associated with the unique category identifier stored in the RECORD_CATEGORY_ID field.

7. The database of Claim 1 further comprising:

for each CDS entry a unique category identifier;
for each CDS entry a field configured for storing the
unique category identifier of each other CDS entry with
which each respective CDS entry is associated;

5 for each RDS entry a unique record identifier;
for each RDS entry a RECORD_CATEGORY_ID field
configured for storing the unique category identifier
corresponding to the RDS entry, and a PEERS field for
storing the unique record identifier of each other RDS
10 entry which corresponds to each respective CDS entry
associated with the unique category identifier stored in
the RECORD_CATEGORY_ID field; and

for each CDS entry a field configured for storing a
STAND-ALONE flag indicating whether a PEER field must be
15 available in a first RDS entry to store the unique record
identifier of a second RDS entry before said second RDS
entry may be entered into the RDS.

8. The database of Claim 1 further comprising
for each CDS entry a unique category identifier;
20 for each CDS entry a field configured for storing the
unique category identifier of each other CDS entry with
which each respective CDS entry is associated;
for each RDS entry a unique record identifier;
for each RDS entry a RECORD_CATEGORY_ID field
25 configured for storing the unique category identifier
corresponding to the RDS entry, and a PEERS field for
storing the unique record identifier of each other RDS

entry which corresponds to each respective CDS entry associated with the unique category identifier stored in the RECORD_CATEGORY_ID field; and

for each CDS entry a field configured for storing a
5 REUSABLE flag indicating whether a new other RDS entry should be created and referenced in the PEERS field, or an existing other RDS entry may be referenced in the PEERS field if the value and meaning of the existing other RDS entry is substantively identical to the value of the new
10 other RDS entry that would otherwise have been created.

9. A method for defining data/type associations, the method comprising the steps of:

defining an application program; and

defining data accessible by the application program
15 and on which the application program is operative, wherein the data comprises:

a records data set (RDS) containing at least one RDS entry having data fields configured for representing data; and

20 a categories data set (CDS) containing at least one CDS entry configured for being associated with the at least one RDS entry and having at least one data type field sufficient to describe the type of data contained by the at least one associated RDS entry.

10. The method of Claim 9 further comprising the steps of defining for each CDS entry a unique category identifier, and defining for each RDS entry a field for storing the unique category identifier of the CDS entry
5 with which a respective RDS entry is associated.

11. The method of Claim 9 further comprising the steps of defining for each RDS entry a unique record identifier, and defining a field configured for storing the unique record identifier of each other RDS entry with which
10 each respective RDS entry is associated.

12. The method of Claim 9 further comprising the step of defining for each CDS entry a unique category identifier and an inheritance field configured for storing the unique category identifier corresponding to another CDS entry from
15 which properties will be inherited for a respective CDS entry.

13. The method of Claim 9 further comprising the step of defining for each CDS entry a unique category identifier and an inheritance field configured for storing the unique
20 category identifier corresponding to another CDS entry from which properties will be cumulatively inherited for a respective CDS entry.

14. The method of Claim 9 further comprising the steps of:

defining for each CDS entry a unique category identifier;

defining for each CDS entry a field configured for storing the unique category identifier of each other CDS entry with which each respective CDS entry is associated;

defining for each RDS entry a unique record identifier; and

defining for each RDS entry a RECORD_CATEGORY_ID field configured for storing the unique category identifier corresponding to the RDS entry, and a PEERS field for storing the unique record identifier of each other RDS entry which corresponds to each respective CDS entry associated with the unique category identifier stored in the RECORD_CATEGORY_ID field.

15 15. The method of Claim 9 further comprising the steps of:

defining for each CDS entry a unique category identifier;

defining for each CDS entry a field configured for storing the unique category identifier of each other CDS entry with which each respective CDS entry is associated;

defining for each RDS entry a unique record identifier;

defining for each RDS entry a RECORD_CATEGORY_ID field configured for storing the unique category identifier corresponding to the RDS entry, and a PEERS field for storing the unique record identifier of each other RDS

entry which corresponds to each respective CDS entry associated with the unique category identifier stored in the RECORD_CATEGORY_ID field; and

5 defining for each CDS entry a field configured for storing a STAND-ALONE flag indicating whether a PEER field must be available in a first RDS entry to store the unique record identifier of a second RDS entry before said second RDS entry may be entered into the RDS.

10 16. The method of Claim 9 further comprising defining for each CDS entry a unique category identifier;

defining for each CDS entry a field configured for storing the unique category identifier of each other CDS entry with which each respective CDS entry is associated;

15 defining for each RDS entry a unique record identifier;

defining for each RDS entry a RECORD_CATEGORY_ID field configured for storing the unique category identifier corresponding to the RDS entry, and a PEERS field for
20 storing the unique record identifier of each other RDS entry which corresponds to each respective CDS entry associated with the unique category identifier stored in the RECORD_CATEGORY_ID field; and

defining for each CDS entry a field configured for
25 storing a REUSABLE flag indicating whether a new other RDS entry should be created and referenced in the PEERS field, or an existing other RDS entry may be referenced in the

PEERS field if the value and meaning of the existing other RDS entry is substantively identical to the value of the new other RDS entry that would otherwise have been created.